

# Appendix C

## Land Use Categorization for CU Model Input

DWR land use surveys provide detailed information regarding the various crops that are planted for a given year in a given county, as well as urban, native vegetation, and non-consumptive land uses. The Consumptive Use model (CU model) input parameters require that each crop be categorized into one of 13 crop types. It is assumed that similar crop types have similar consumptive use of applied water requirements. The categorization of each crop listed in the land use surveys is shown below. Also included are urban, native vegetation, and non-consumptive uses.

DWR LAND USE SURVEY CROP TYPES	CORRESPONDING CONSUMPTIVE USE MODEL CROP TYPES
1 House per Acre	Urban
2 Houses per Acre	Urban
2 RV Lots per Acre	Urban
3 Houses per Acre	Urban
3 RV Lots per Acre	Urban
4 Houses per Acre	Urban
4 RV Lots per Acre	Urban
5 Houses per Acre	Urban
5 RV Lots per Acre	Urban
6 Houses per Acre	Urban
6 RV Lots per Acre	Urban
7 Houses per Acre	Urban
7 RV Lots per Acre	Urban
8 Houses per Acre	Urban
8 RV Lots per Acre	Urban
9 Houses per Acre	Urban
Alfalfa	Alfalfa
Almonds	Orchard
Apples	Orchard
Apricots	Orchard
Artichokes	Misc. Truck
Asparagus	Misc. Truck
Avocados	Citrus/Olive

DWR LAND USE SURVEY CROP TYPES	CORRESPONDING CONSUMPTIVE USE MODEL CROP TYPES
Barley	Grain
Barren and Wasteland	Urban
Barren Land	Urban
Beans (dry)	Gen. Field
Beans (green)	Misc. Truck
Broccoli	Misc. Truck
Brush and Timber	Native Vegetation
Brussels Sprouts	Misc. Truck
Bushberries	Misc. Truck
Cabbage	Misc. Truck
Carrots	Misc. Truck
Castor Beans	Gen. Field
Cauliflower	Misc. Truck
Celery	Misc. Truck
Cemeteries – Irrigated	Urban
Cemeteries - Not Irrigated	Urban
Cherries	Orchard
Clover	Pasture
Cole	Misc. Truck
Commercial	Urban
Corn	Gen. Field
Cotton	Cotton
Cropped Within past 3 Years	Non-Consumptive
Dairies	Non-Consumptive
Dates	Citrus/Olive
Deciduous Fruits and Nuts	Orchard
Deciduous Orchard	Orchard
Dry Stream Channels	Urban
Eucalyptus	Native Vegetation
Extraction	Urban
Farmsteads	Non-Consumptive
Feedlots	Non-Consumptive
Field Crops	Gen. Field
Figs	Orchard
Flax	Gen. Field
Flowers, Nursery	Misc. Truck
Forest	Native Vegetation
Freeways, Railroads	Urban
Fruit Canneries	Urban
Golf Course – Irrigated	Urban
Grain	Grain

<b>DWR LAND USE SURVEY CROP TYPES</b>	<b>CORRESPONDING CONSUMPTIVE USE MODEL CROP TYPES</b>
Grain Sorghums	Gen. Field
Grapefruit	Citrus/Olive
Grassland	Native Vegetation
Heavy Brush	Native Vegetation
Hops	Gen. Field
HWU Lawns	Non-Consumptive
Idle	Non-Consumptive
Industrial	Urban
Jojoba	Citrus/Olive
Kiwis	Citrus/Olive
Landscape – Irrigated	Urban
Lawn – Irrigated	Urban
Lemons	Citrus/Olive
Lettuce	Misc. Truck
Light Brush	Native Vegetation
LWU Native Plants	Non-Consumptive
Manufacturing	Urban
Marsh Lands, Tules, Sedges	Native Vegetation
Meat Packing	Urban
Medium Brush	Native Vegetation
Melons, Squash, Cucumbers	Misc. Truck
Mine Tailings	Urban
Misc.	Citrus/Olive
Misc.	Orchard
Misc.	Misc. Truck
Misc.	Urban
Misc. Field	Gen. Field
Misc. Grasses	Pasture
Mixed	Grain
Mixed	Pasture
Mixed Truck Crops	Misc. Truck
Native	Pasture
Native Classes	Native Vegetation
Native High Water	Pasture
Native Vegetation	Native Vegetation
Natural HWT Meadow	Native Vegetation
Newly Being Prepared	Non-Consumptive
Not Surveyed	Non-Consumptive
Oats	Grain
Oil Refineries	Urban
Olives	Citrus/Olive

<b>DWR LAND USE SURVEY CROP TYPES</b>	<b>CORRESPONDING CONSUMPTIVE USE MODEL CROP TYPES</b>
Onions, Garlic	Misc. Truck
Oranges	Citrus/Olive
Paper Mills	Urban
Pasture	Pasture
Paved	Urban
Peaches, Nectarines	Orchard
Pears	Orchard
Peas	Misc. Truck
Peppers	Misc. Truck
Permanent Duck Marsh	Native Vegetation
Pistachios	Orchard
Plums	Orchard
Potatoes	Misc. Truck
Poultry Farms	Non-Consumptive
Prunes	Orchard
Raisin Grapes	Vineyard
Rec. Vehicle and Camp Sites	Urban
Recreational Vacant	Urban
Residential	Urban
Rice	Rice
Riparian Vegetation	Native Vegetation
Runways	Urban
Safflower	Gen. Field
Salt Flats	Urban
Sand Dunes	Urban
Saw Mills	Urban
Seasonal Duck Marsh	Native Vegetation
Semiagricultural	Non-Consumptive
Sewage Treatment	Urban
Spinach	Misc. Truck
Steel and Aluminum Mills	Urban
Storage and Distribution	Urban
Strawberries	Misc. Truck
Subtropical Fruits	Citrus/Olive
Suburban Residential	Non-Consumptive
Sudan	Gen. Field
Sugar Beets	Sugar Beets
Sunflowers	Gen. Field
Sweet Potatoes	Misc. Truck
Table Grapes	Vineyard
Tomatoes	Tomato-Mach.

<b>DWR LAND USE SURVEY CROP TYPES</b>	<b>CORRESPONDING CONSUMPTIVE USE MODEL CROP TYPES</b>
Trees, Shrubs	Native Vegetation
Truck and Berry Crops	Misc. Truck
Truck Crop	Misc. Truck
Turf	Pasture
Unpaved	Urban
Urban	Urban
Urban Landscape	Urban
Vacant	Urban
Vineyards	Vineyard
Walnuts	Orchard
Water Surface	Native Vegetation
Wheat	Grain
Wind or Solar Farms	Native Vegetation
Wine Grapes	Vineyard

The acreage of each CU model crop type within each CALSIM II demand area is shown in Table 1 below.

**Table 1:** Land Use for CALSIM II (acres)

	Pasture	Alfalfa	Sugar Beets	General Field	Rice	Misc. Truck	Orchard	Vineyard	Cotton	Tomato-Machine	Grain	Citrus-Olive	Total
Chowchilla Water District	2,116	13,190	0	9,613	0	79	18,434	6,265	14,968	576	3,546	7	68,796
SJR East Bank Downstream of Stanislaus, Non-District	1,007	2,050	34	1,436	0	879	1,295	924	0	458	3,011	0	11,094
SJR East Bank Merced to Tuolumne, Non-District	1,755	1,089	0	3,904	0	123	557	104	0	453	437	0	8,421
SJR East Bank Tuolumne to Stanislaus, Non-District	2,070	797	0	2,185	0	170	199	94	0	0	110	0	5,625
East of Madera ID, Non-District	1,089	1,252	0	4,717	0	132	31,306	13,168	1,419	187	9,153	4,938	67,362
East of Merced ID, Non-District	3,566	308	0	441	0	474	8,861	1,128	108	763	3,639	46	19,335
East of Modesto ID and Oakdale ID, Non-District	4,578	0	0	1,011	54	335	4,539	14	0	0	2,235	0	12,766
East of Turlock ID, Non-District	7,454	1,455	16	9,178	2	449	37,974	9,709	0	0	4,235	20	70,492
Madera ID	2,569	1,104	0	3,793	0	443	31,661	57,041	5,278	35	2,874	1,596	106,395
Merced ID	14,960	7,406	844	11,808	3,215	5,426	44,673	3,489	7,995	4,516	5,639	51	110,023
Merced River Riparian Diversions, Non-District	271	851	222	1,486	0	66	1,934	3,057	0	0	77	0	7,964
Modesto ID	9,638	2,612	10	10,960	974	833	33,086	4,227	0	69	808	18	63,236
Oakdale ID North	13,063	18	0	1,884	3,964	30	2,399	262	0	0	692	0	22,312
Oakdale ID South	18,327	127	0	5,478	792	142	4,469	731	0	0	404	15	30,486
South San Joaquin ID	4,402	2,685	0	3,797	105	1,407	37,723	4,704	0	240	2,783	124	57,970
Stanislaus River Riparian Diversions, Non-District	94	156	0	522	0	27	4,197	396	0	1	37	0	5,430
Tuolumne River Riparian Diversions, Non-District	221	87	0	156	0	5	1,064	171	0	0	237	0	1,943
Turlock ID	15,730	16,816	49	42,100	0	4,606	61,599	5,247	0	8	1,417	171	147,743
West of Madera ID and Chowchilla WD, Non-District	5,706	22,514	361	7,045	142	2,462	10,769	14,649	19,168	485	10,502	2	93,805
West of Merced ID, Non-District	19,238	22,588	3,763	16,798	1,211	3,196	10,943	4,064	18,467	8,454	12,153	38	120,913
Stockton East WD	2,146	2,886	963	5,375	0	4,593	33,490	2,538	0	6,768	9,039	0	67,798
Total	127,854	97,105	5,300	138,313	10,458	21,283	347,682	129,448	67,405	16,245	63,990	7,028	1,032,111